

K081059

JUL 17 2008

# TORNIER

## Implants Chirurgicaux

### Summary of Safety and Effectiveness information *Special 510(k) Premarket Notification – Aequalis Reversed Shoulder Prosthesis*

Regulatory authority: Safe Medical Devices Act of 1990, 21 CFR 807.92

**1) Device name**

**Trade name:** *AEQUALIS Reversed Shoulder Prosthesis*  
**Common name:** Total-Shoulder System and Hemi-Shoulder System  
**Classification name:** Shoulder joint metal/polymer semi-constrained cemented prosthesis

**2) Submitter**

Tornier  
Rue Doyen Gosse  
38330 Saint Ismier - France

**3) Company contact**

Tornier  
Mr Damien Guillaud  
Regulatory affairs Specialist  
161, rue Lavoisier - Montbonnot  
38334 Saint Ismier Cedex - France  
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**4) Classification**

**Device class:** Class II  
**Classification panel:** Orthopedic  
**Product code:** KWS

**5) Equivalent / Predicate device**

**Aequalis Reversed Shoulder Prosthesis**, TORNIER SA, K030941, K041873, K050316, K061439  
**Aequalis Shoulder System**, TORNIER SA, K952928, K012212, K041339, K060209

**6) Device description**

The *Aequalis Reversed Shoulder Prosthesis* is intended to be used to relieve pain and significant disability following massive and non repairable cuff-tear associated to arthropathy and following massive cuff-tear arthropathy. In this case, the rotator muscles of the shoulder (supraspinatus, infraspinatus, teres minor and long head of the biceps) are no more useful for mobility, and only the deltoid (for abduction and external rotation) and the subscapularis (for internal rotation) are functional.

Therefore, the usual goal of such surgery is to restore the shoulder joint to facilitate its working condition and to reduce or eliminate pain. The *Aequalis Reversed Shoulder Prosthesis* is intended to accomplish these

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goals. Its reversed design allows to medialize the center of rotation of the shoulder, lengthening the deltoid muscle lever arm.

The *Aequalis Reversed Shoulder Prosthesis* is a semi-constrained system composed of a humeral and a glenoid parts.

The present device modification submission consists in :

- addition of glenoid baseplates and glenoid spheres,
- addition of polyethylene inserts.

### 7) Materials

The base of the glenoid implant is manufactured from Titanium alloy. The sphere is manufactured from Cobalt-Chromium alloy and the screw is manufactured from Titanium alloy.

The hydroxylapatite coating conforms to the ASTM standard F 1185. The coating is performed by BioCoat, Inc. according to their Master File MAF-339.

Metaphyseal inserts are made of ultra-high molecular weight polyethylene (UHMWPE).

### 8) Indications

The *Aequalis Reversed Shoulder Prosthesis* is indicated for patients with a functional deltoid muscle as a total shoulder replacement for the relief of pain and significant disability following arthropathy associated to massive and non repairable rotator cuff-tear. This device is also indicated for the prosthetic revisions with massive and non repairable rotator cuff-tear. Only the humeral components are for cemented use. The glenoid implant is anchored to the bone with 4 screws and is for non-cemented fixation.

When during the primary surgery the glenoid bone stock appears to be insufficient to bear the reversed glenoid components or when glenoid bone fracture occurs during the surgical procedures, the hemi-prosthesis adaptor and the union screw can be adapted to the humeral components in order to transform the *Aequalis Reversed* prosthesis into a non reversed hemi-prosthesis.

When, in case of revision of a *Aequalis Reversed* prosthesis, the glenoid bone stock appears to be insufficient to implant a base plate and a sphere of *Aequalis Reversed* range again, the use of the hemi-prosthesis adaptor and the union screw allows for the transformation of the *Aequalis Reversed* prosthesis into a non reversed hemi-prosthesis in order to avoid the revision of the humeral components.





Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

Tornier  
% Mr. Damien Guillaud  
Regulatory Affairs Specialist  
161, rue Lavoisier – Montbonnot  
38334 Saint Ismier Cedex FRANCE

JUL 17 2008

Re: K081059  
Trade/Device Name: Aequalis Reversed Shoulder Prosthesis  
Regulation Number: 21 CFR 888.3660  
Regulation Name: Shoulder joint, metal/polymer, semi-constrained cemented prosthesis  
~~Regulatory Class: Class II~~  
Product Code: KWS  
Dated: June 16, 2008  
Received: June 20, 2008

Dear Mr. Guillaud:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Center for Devices and Radiological Health's (CDRH's) Office of Compliance at (240) 276-0120. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). For questions regarding postmarket surveillance, please contact CDRH's Office of Surveillance and Biometric's (OSB's) Division of Postmarket Surveillance at (240) 276-3474. For questions regarding the reporting of device adverse events (Medical Device Reporting (MDR)), please contact the Division of Surveillance Systems at (240) 276-3464. ~~You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at toll-free number (800) 638-2041 or (240) 276-3150 or the Internet address <http://www.fda.gov/cdrh/industry/support/index.html>.~~

Sincerely yours,



Mark N. Melkerson  
Director  
Division of General, Restorative  
and Neurological Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

## Indications for Use

510(k) Number (if known):

Device Name: *Aequalis Reversed Shoulder Prosthesis*

### Indications For Use:

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Prescription Use ☒ X  
(Part 21 CFR 801 Subpart D)

AND/OR

Over-The-Counter Use \_\_\_\_\_  
(21 CFR 801 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

(Division Sign-Off)

Division of General, Restorative,  
and Neurological Devices

510(k) Number K081059/S1

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